

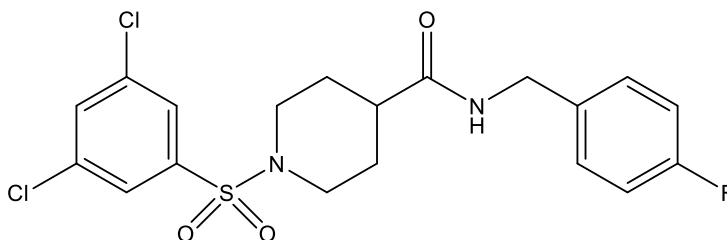
**Catalog #10-4191**

**BI01383298**

2227549-00-8

1-(3,5-Dichlorophenylsulfonyl)-N-(4-fluorobenzyl)piperidine-4-carboxamide

Lot # FBA9067



BI01383298 is a potent, non-competitive, irreversible inhibitor of the human Na<sup>+</sup>-coupled citrate transporter (NaCT/SLC13A5/mINDY).<sup>1,2</sup> IC<sub>50</sub> = 49 nM in the presence of Li<sup>+</sup> with preincubation and 118 nM without Li<sup>+</sup>. BI01393298 is inactive in mouse NaCT for citrate transport. NaCT delivers citrate, a key metabolite and regulator of multiple biochemical pathways, from the blood to hepatocytes and neurons. Reduced expression of NaCT has been linked to longevity and increased expression has been linked to type 2 diabetes and non-alcoholic fatty liver disease. BI01383298 also blocked transport of arginine, dimethylarginine, and L-homoarginine in both human and mouse NaCT.<sup>2</sup>

- 1) Higuchi *et al.* (2020) *Functional analysis of a species-specific inhibitor selective for human Na<sup>+</sup>-coupled citrate transporter (NaCT/SLC13A5/mINDY)*; *Biochem. J.* **477** 4149
- 2) Surrer *et al.* (2022) *L-Arginine and Cardioactive Arginine Derivatives as Substrates and Inhibitors of Human and Mouse NaCT/Nact*; *Metabolites* **12** 273

**PHYSICAL DATA**

Molecular Weight:	445.34
Molecular Formula:	C <sub>19</sub> H <sub>19</sub> Cl <sub>2</sub> FN <sub>2</sub> O <sub>3</sub> S
Purity:	>98% HPLC
	NMR: (Conforms)
Solubility:	DMSO (at least 35 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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